

January-14-15 11:55:55 AM

Page 1

Quality Control

Work Order ID 128299

128299

Page 2

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Item ID: D2893-1 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Support
 Start Date: 1/14/15 Start Qty: 12.00 *12* Cust Item ID:
 Required Date: 1/30/15 Req'd Qty: 12.00 *12* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* HandFXtube Hand Finishing Crosstubes	Memo Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24h of cure time.	0.00				13			DAS 41 9-89 15-2-9
140 *140* QC Quality Control	QC3- Inspect Part Finish Memo	0.00				(13)			DAS 38 9-89 FEB 11 2015
170 *170* Packaging Packaging	Identify as per dwg & Stock Location: <u>LG082</u> Memo	0.00				13			DAS 27 9-89 FEB 11 2015

Work Order ID 128299

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Item ID: D2893-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Support

Start Date: 1/14/15

Start Qty: 12.00

12

Cust Item ID:

Required Date: 1/30/15

Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

mcs 15-02-12

Picklist Print

January-14-15 11:55:54 AM

Page 1

Work Order ID: 128299

128299

Parent Item: D2893-1

D2893-1

Parent Item Name: Support

Start Date: 1/14/15

Required Date: 1/30/15

Start Qty: 12.00

Required Qty: 12.00

Comments:

IPP: C02.11.26Reformat; Added P/OKJ

IPP D 06.04.19 removed alodine EC

IPP Rev:E Added priming as per Rev B 07-04-30 JLM

IPP F 08.03.19 Re-format EC verified by: DD

IPP Rev:G 08-05-15 add QC14 DD verified by:EC

11.08.04 as per dwg rev.C DD verf:EC

IPP Rev:H

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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DSK078

Manufactured

No

100

Each

0.0000

0.5

16

DSK078

**

D2893-1 Turning Detail

128465
127872

2
5

2015/01/28
JHC 2015-01-26

DART AEROSPACE LTD		Work Order: 128299
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.995	2.998	2.985	2.990	2.988
AB	0.440	0.460		.450	.460	.460	.460	0.460
AC	0.125	0.160		.155	.155	.155	0.135	0.130
AD	0.040	0.060		.050	.050	.050	0.050	0.050
AE	0.188	0.193		.188	.188	.188	0.188	0.188
AF	0.125	0.160		.143	.143	.140	0.143	0.135
AG	0.140	0.160		.145	.140	.145	0.140	0.142
AH	1.360	1.400		1.378	1.375	1.373	1.374	1.375
AI	0.040	0.060		.046	.044	.047	0.049	0.044
AJ	1.190	1.230		1.211	1.214	1.214	1.218	1.215
AK	0.010	0.020		.015	.015	.015	0.015	0.015
AL	0.053	0.073		.063	.063	.063	0.063	0.063
AM	0.240	0.260		.250	.250	.250	0.250	0.240
AN	2.518	2.538		2.528	2.528	2.529	2.525	2.523
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.261	.261	0.261	0.261
AQ	0.053	0.073		.063	.063	.063	0.063	0.063
AR								
AS								
AT								
Accept/Reject								

Measured by: [Signature] 15-01-2015	Date: 15/02/03
Audited by: JFL 2015-02-09	Date: 2015-02-09
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
D	12.07.31	Dwg Rev updated	KJ	[Signature]

DART AEROSPACE LTD		Work Order: 128299
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6 ¹	7 ²	8 ³	9 ⁴	10 ⁵
HAAS Section								
AA	2.985	3.005		2.995	2.997	2.995	2.997	2.993
AB	0.440	0.460		0.137	0.130	0.138	0.130	0.130
AC	0.125	0.160		0.460	0.460	0.460	0.460	0.460
AD	0.040	0.060		0.050	0.050	0.050	0.050	0.050
AE	0.188	0.193		0.188	0.188	0.188	0.188	0.188
AF	0.125	0.160		0.132	0.135	0.135	0.135	0.139
AG	0.140	0.160		0.145	0.148	0.145	0.146	0.144
AH	1.360	1.400		1.377	1.377	1.383	1.387	1.383
AI	0.040	0.060		0.046	0.051	0.047	0.050	0.045
AJ	1.190	1.230		1.215	1.220	1.222	1.222	1.222
AK	0.010	0.020		0.015	0.015	0.015	0.015	0.015
AL	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AM	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AN	2.518	2.538		2.523	2.521	2.525	2.525	2.522
AO	84.39	90.39		87.39°	87.39°	87.39°	87.39°	87.39°
AP	0.261	0.266		0.261	0.261	0.261	0.261	0.261
AQ	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AR								
AS								
AT								
Accept/Reject								

Measured by: JWP	Date: 15/02/03
Audited by: JKE 2015-02-09	Date: 2015-02-09
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	
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DART AEROSPACE LTD		Work Order:	128299
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: C	Page 1 of 1	

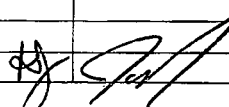
FIRST ARTICLE INSPECTION DIMENSION SHEET

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Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.996	2.997	2.997		
AB	0.440	0.460		0.460	0.460	0.460		
AC	0.125	0.160		0.130	0.130	0.130		
AD	0.040	0.060		0.050	0.050	0.050		
AE	0.188	0.193		0.188	0.188	0.188		
AF	0.125	0.160		0.130	0.143	0.130		
AG	0.140	0.160		0.144	0.147	0.147		
AH	1.360	1.400		1.382	1.383	1.381		
AI	0.040	0.060		0.047	0.047	0.045		
AJ	1.190	1.230		1.223	1.223	1.219		
AK	0.010	0.020		0.015	0.015	0.015		
AL	0.053	0.073		0.063	0.063	0.063		
AM	0.240	0.260		0.250	0.250	0.250		
AN	2.518	2.538		2.525	2.521	2.521		
AO	84.39	90.39		87.39°	87.39°	87.39°		
AP	0.261	0.266		0.261	0.261	0.261		
AQ	0.053	0.073		0.063	0.063	0.063		
AR								
AS								
AT								
Accept/Reject								

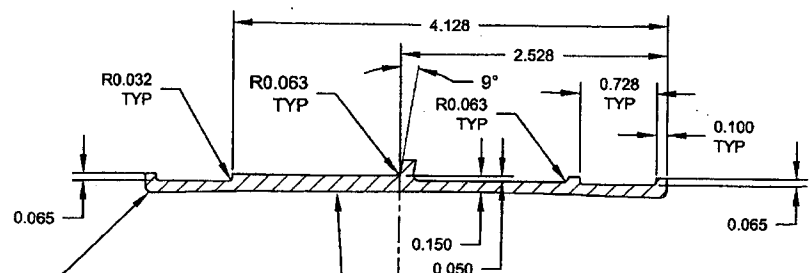
Measured by: KJP **Date:** 15/02/03

Audited by: JFL **Date:** 2015-02-09

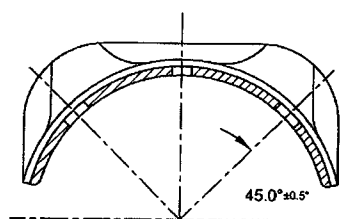
Preliminary Approval: **Date:**

Rev	Date	Change	Revised by	Approved
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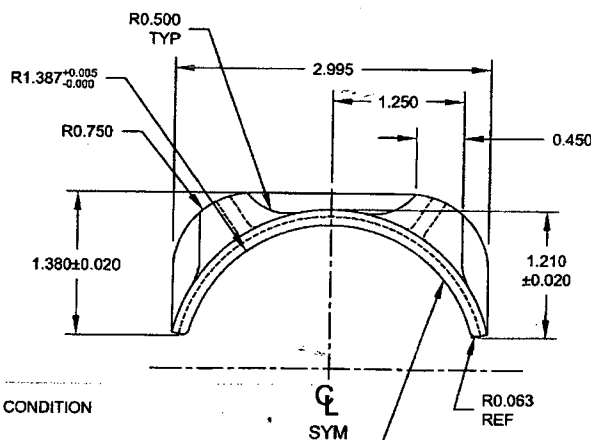
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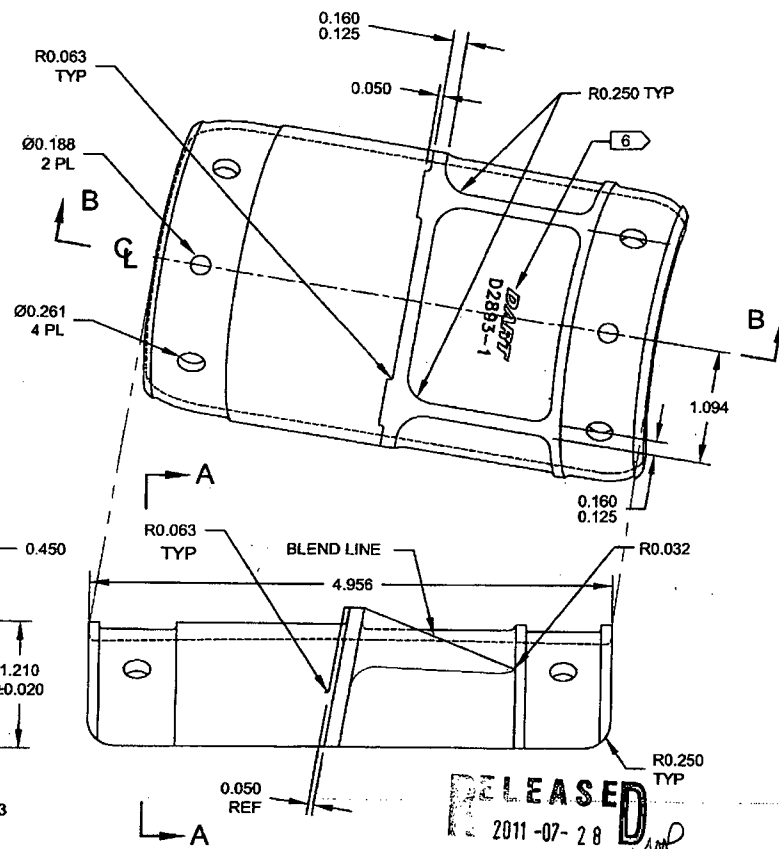
SECTION B-B



SECTION A-A
TOOLING HOLE DETAIL



D2893-1 SUPPORT



RELEASED
2011-07-28

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 (REF XXXX = ±0.010) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING
0.010-0.020 DEEP, PER DART QSI 044 6.3.
- 7) WEIGHT: 0.78 lb
- 8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.

110128229

C	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION	CP	11.07.15
B	UPDATE DIMS AS MFG, PRIME INSIDE	PH	07.03.16
A	NEW ISSUE	CP	01.01.10
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D2893	REV. C
TITLE 02.750 SUPPORT	SHEET 1 OF 1
SCALE	NTS

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BQA:

Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DAR
AEROSP.

QA Closed:

Date: _____

Work Order update only ☐

Work Order: _____	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS				
Part No. _____		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	
NCR No. _____		Machining ☒	Small Fab ☐	Prod Eng. Coord. ☐	Quality ☐	
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
		Large Fab ☐	Composite ☐	Supplier ☐		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspect
Design	15/01/28	100	1	to deep groove at dim. 2.528"	S	Scrap destroyed	P		
Doc/Data						Replace	15/01/28		
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

to deep groove at dim. 2.528"

R.C. shifted to much "Yaxes"

operator set off set in code 9
no verification on setupQ2242
15/01/28Scrap destroyed
Replace
Batch 124465P
15/01/28S
15/01/28

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Force ☒ Set-up ☐ Temperature/C ☐ Weld ☐ Wrong Stock Pl ☐ Other
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